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A curriculum unit was developed to teach apprentice teachers the theories underlying the teaching-learning process and their relationship to classroom application. The university supervising teacher, subject area specialists, and the cooperating classroom teacher would work with the apprentice teacher as she learned specific techniques of teaching and classroom management and practices. The model, rationale, and an extensive bibliography for the course are included in this syllabus. Although most of the material is directed towards teachers of middle grades, general methods which could be used by teachers working in any age group are also described. (MS)

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FORDHAM UNIVERSITY
SCHOOL OF EDUCATION
New York, N.Y.

LEARNING AND TEACHING

Grades N-9

(Emphasis on Early Childhood)

ED023459

PS001248

Syllabus for Education 138.10
Learning and Teaching in Early Childhood Education
Prekindergarten through Grade Two
Overview - Grades Three through Six.

Our young children live in one of the world's largest cities. This urban environment conditions their experience in and out of school. Young children living in different sections of this large city bring to school a variety of different experiences. These experiences as well as all that is known at the present time of how children of this age group learn are reflected in the syllabus for this course*.

The following "Blocks" as well as class time are suggestive.

Block	Hours Class sessions	Theme
I	8	Getting the Most From Apprentice Teaching
II	32	Knowing the Child from Age 4 - 7, 8-11
III	8	Knowing the School
IV	8	Knowing the School Community
V	30	Knowing How Children Learn
VI	16	Knowing the Components of a Desirable Classroom Atmosphere
VII	120	Knowing the Importance of the Curriculum as the Vehicle for Learning
VIII	18	Knowing How to Use Materials of Instruction Effectively

* Approximately 80% of the course time will be devoted to learning and teaching in grades prekindergarten through grade two and 20% of the time to grades three through six.

Course: Education 138.10
Learning and Teaching in Early-Childhood Education
(Prekindergarten through Grade II)
Overview of Grades 3 - 6
8 hours a week of class sessions, plus conferences and service as an apprentice teacher:

RECOMMENDATIONS

1. Apprentice Teacher assignments should be made prior to the close of the academic year. Students specializing in Early Childhood should take 138.10 in the first semester. Their apprentice teaching assignment for the first semester should be divided between an experience in an Early Childhood grade and a contiguous grade. The second semester should be devoted to experience again in the Early Childhood grades.

2. In so far as possible, Apprentice Teachers should be encouraged to become familiar during the summer with the school community.

3. College Supervisors should be assigned a maximum of 12 Apprentice Teachers, preferably in no more than 2 schools.

4. College Supervisors should have a minimum of 5 years teaching experiences on the level of their apprentice teaching assignments.

5. In preparation for apprentice teaching, students should have 12 hours of preliminary work in late May or early June in:
   a. The purposes of apprentice teaching.
   b. Directed observation(Purposes, procedures, techniques for recording observations, and related factors).

Films and tape recordings of classroom lessons on segments of lessons should be used to give practical application to the techniques and procedures emphasized as effective in classroom observation. (Use of some Board of Education films may be able to be arranged through the Bureau of Audio Visual Education or the Board of Examiners)

Each student should receive a copy of the Brochure, Getting Started in the Elementary School -- A Manual for New Teachers, Board of Education, City of New York, 1966.*

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* Available -- Publications Office, Board of Education, 110 Livingston Street, Brooklyn, New York. Cost $2.50 less 20% on quantity orders placed by the universities.

Each student should also receive several sample "guides for classroom observation."

6. In the fall, 1967, a seminar should be organized for the college supervisors. Each supervisor should be given the highlights of the preliminary work covered in Item #5, a copy of the brochure for new teachers, and a copy of the companion volume, "Supervisor's Manual for Helping New Teachers" (Cost $1.50).

7. Apprentice teachers should report to the school to which they are assigned the Thursday of the week before school opens in September. On regular school days they should report at 8:40 A.M. so that they become familiar with activities such as entrance of pupils, housekeeping chores, supervision of play yards, etc.

8. The course in Education 138.10 should begin at the same time that apprentice teaching is initiated. This would include a visit to the school by the College Supervisor during the first week of school in September.

9. Supportive help such as informal discussions with an anthropologist, sociologist, and/or psychologist should be available to the College Supervisor on request.

10. Cooperating Teachers from schools should take part in a seminar in the fall of 1967 .

11. Subject specialists invited to teach sessions relating to curriculum areas should participate in an orientation meeting.

12. Every effort should be made to have the course in Education 138.10 meet the practical situations to be encountered in classrooms. With this objective in mind, films, tapes, case studies, role playing, discussions, and brief reports by Apprentice Teachers should be emphasized. In observing and in class discussions, focus should be placed on two questions:
    1. <u>What</u> is the <u>Cooperating Teacher</u> doing and <u>why</u>?
    2. <u>What</u> is the <u>child</u> doing and <u>why</u>?

Block I - (8 hours class sessions plus conferences and service as Apprentice Teachers)

Theme: Getting the Most from Apprentice Teaching

1. Objectives: To review the specific purposes of Apprentice Teaching
To provide practical guidelines to enable Apprentice Teachers to learn by observing classroom teachers and children
To provide opportunities for Apprentice Teachers to grow in the ability to observe a teaching - learning situation, to understand what is being done, and why.

2. Implementation
2.1 Content
2.1.1 Purposes of Apprentice Teaching
2.1.2 Use of Audio-Visuals
Class activities should focus on the planned use of films and tape recordings of teaching situations
2.1.3 Directed Viewing
In the beginning, short segments of lessons should be shown to the students. It should be understood that in a teaching situation in prekindergarten and kindergarten there will be many "lessons" going on at one time. For example, five children are in the block area, three or four children are in the housekeeping area, while the remainder of the class is involved in other activities.
It is important that the student observing at these levels direct her observation to one activity so that she can observe the teaching-learning process.
Each showing should be preceded by giving the student a few questions to be answered, as:
Relating to material --
What material did the teacher give the children?
How did each child get the material?
What did each child do with it?
Relating to a question --
What question did the teacher ask?
Did the children understand the question?
How do you know?
Relating to use of chalkboard and/or bulletin board
Why did the teacher use the chalkboard and/or bulletin board?
Could the children see as she was writing?
What did the children do as she was writing?
What did the teacher do with material on the bulletin board?
Relating to a child's response to a question --
Was the child's answer correct?
What did the teacher say to indicate this?
How was the child's answer used in the lesson?

2.1.4 Group Discussions

Adequate time should be afforded for discussion of the answers to the questions raised. Emphasis should be placed on:

1. What did the teacher do? Why?
2. What did the children do? Why?
3. What could you have done to improve the situation? Why?

2.1.5 Observation Guide

Attention should be focused on questions, as:

How have we observed what is happening or about to happen in the classroom?

What did we learn by <u>seeing</u>? <u>Hearing</u>? Intuition? Other ways?

How did our past experiences help us to forecast what will probably occur in the class?

How did we remember what we observed?

A simple observation guide should be developed by the class and used in the next evaluations. Ways in which individuals record notes of observations should be discussed and two or three best ways stressed. At this point, only major parts of the lesson should be stressed, as:

Pattern I - List main parts of lesson on left side of sheet: Aim, Motivation, Lesson Proper (Approach, Materials, Questioning, Evaluation, Pupil participation, Summary), Assignment. Write comments to be remembered beside headings.

Pattern II- List main parts of lesson on 5x7 cards. Write comments to be remembered on each card.

Later, as the student grows in ability, she may be able to evaluate the lesson from the viewpoint of positive and negative features. This can be done in many ways, as by dividing the Observation Guide Sheet in half and listing all positive features on the left - hand side and all negative on the other side. The value of key words as a help in recalling information should be stressed.

2.1.6 Viewing of Whole Lesson

As the students' abilities increase, whole lessons can be viewed. Prior to these viewings, it is important to review:

Use of guide sheet and its availability for current viewing

Emphasis on answering a few pivotal questions which have been placed on the chalkboard. Included among these questions should be the three raised under Item 2. 3.

In later discussions more difficult questions requiring intuition or the ability to "interpret" classroom situations can be asked, as:

What is the Teachers' attitude toward the children? How do you know?

What is the child's attitude toward his teacher? How do you know?

What do some of the children think about a particular child? How do you know?

2.1.7. Effective Lessons in Subject Areas

While the students are learning about a particular subject area, simple guidelines for observing a lesson in the area at a specific grade level can be developed. These guidelines will be of value not only in observing in actual classrooms but also in planning the lessons the Apprentice Teacher will teach.

2.2. Readings

Student

Board of Education of the City of New York Student Teaching, Elementary Schools, 1963

Getting Started in the Elementary School - A Manual for New Teachers. 1966

Guide for Newly Appointed Teachers in the New York City Elementary Schools. 1965.

National Education Association, Washington, D.C. Education and the Disadvantaged American. 1962.

Passow, A. Harry, Editor. Education in Deparessed Areas. New York: Columbia University Press, 1963.

Instructor

Conant, James B. Slums and Suburbs. New York: McGraw, 1961.

Klopf, Gordon J., Laster, Israel A., editors. Integrating the Urban School. New York: Columbia University Press, 1963.

Reissman, Frank. The Culturally Deprived Child. New York: Harper, 1962.

Strom, Robert D. The Inner-City Classroom: Teacher Behaviors. Columbus, Ohio: Chas. Merrill, 1966.

2.3 Activities

Note: Activities are included under content and therefore not listed in this section.

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Block II - (32 class sessions plus conferences and service as Assistant Teacher).

Theme: Primary - knowing the child from 4-7; Secondary - acquiring an understanding of the child from 8-11.

1. Objectives: To deepen the understanding of the urban child, age 4-7, with implications for growth and development of the child from 8-11, including physical, emotional and socio-personal characteristics, as well as needs and concerns about self as related to the school program.

2. Implementation

2.1 Content

2.1.1. Review of socio-economic structure of home and family life in the urban environment and its implications for the child from 4-7 and from 8-11.

2.1.2. Differential patterns of child rearing and implications for growth and development.

2.1.3. Knowing the child - prenatal period through infancy: prenatal and paranatal factors in development, implications of maternal patterns of care/deprivation, influence of infancy on later development.

2.1.4. Knowing the child - 2-4 years - physical, social, emotional, cognitive styles of development, implications for understanding of 4-7/8-11 year olds.

2.1.5. thru 2.1.8. Knowing the child - (detailed study of the age group between 4-7): physical, social, emotional, cognitive growth and development; review of earlier longitudinal models based on central tendencies in growth (i.e. Gesell) through current emphasis on tailoring of developmental structures to needs of individual child.

2.1.9. 2.1.10. Knowing the child, 4-7: elaboration of 2.1.5 - 2.1.8 through more detailed study of needs of young learner. . . . . .beginning school: fears on entering a new situation, anxiety in separation from mother; relating to peers, to teacher, possible cultural conflicts for urban deprived child in relating to adults of other ethnic groups, in failing to understand teacher's language (non-English speaking child; child with non-standard dialect or patois).
. . . .mastering school environment: development of sense of achievement, patterns of individual achievement in relation to group and group identification; conflicts in learning to use teachers and other professionals as adult models; distrust of adults based on inadequate cultural experiences.

2.1.11. - Knowing the child 8-11: focus on helping early childhood students understand next developmental levels and the "thrust" of behavioral styles toward more mature and independent levels of function; conflicts for intermediate child between needs for independence/autonomy and socialization/group identification.

2.1.12. thru 2.1.14. Knowing the child - methods of obtaining data: developing skills in study of cumulative records, in analyzing and interpreting pertinent information, in observing micro-levels of behavior for very brief periods and recording in objective terms. Understanding of tests and other evaluative tools; differences between formal and informal tests; understanding of major standardized tests, with focus for early childhood student on preschool developmental schedules and early childhood tests of perceptual and perceptual-motor skills; brief introduction to basic statistical terminology.

2.1.15. Understanding of individual differences in regular classroom (note - focus here is not on more extreme variations associated with term "exceptional children" which would be treated in a later course): learning to relate to nongroup oriented children; understanding types of "shyness", acting out children, excessively dependent submissive children; organizing children in groups and developing flexibility in regrouping on basis of social and emotional as well as cognitive needs.

2.1.16. Knowing the child through understanding of self (ex: working with parents, with other professionals, with paraprofessionals); developing sophistication as well as sympathy and sensitivity to other adults in their relations to children in the school setting; helping the beginning teacher gain insight into his own needs in relation to other adults, his own tendencies to exploit adults in interest of children or vice versa.

2.2. Readings
Student

Almy, M. Ways of studying children. _____

_____, 1959

Dennis, W. Readings in child psychology. 2nd ed. Prentice-Hall, 1963.

Gesell, A. and Ilg, F. Infant and child in culture of today, Harper, 1943.

Hymes, J.L. Jr. Behavior and misbehavior; also A child development point of view. Both Prentice-Hall, 1955

Sarason, S.B., et al. Anxiety in elementary school children. Wiley, 1960.

Mussen, P.H. Handbook of research methods in child development. 3rd ed., Wiley, 1960.

Tyler, L.E., Tests and measurements. Prentice-Hall, 1963.

Instructor

Anastasi, A. Differential psychology. Third ed, New York: Macmillan, 1958.

Biber, B., Play as growth process.

Bloom, B., Compensatory education.

Board of Education Bulletins:
Guidance of children in elementary schools, 1956.
Puerto Rican Profiles, 1964-5.
Working with Puerto Rican Pupils, 1966.

Bruner, J.S., The process of education. Harvard, 1961.

Cronbach, L.J., Educational psychology. 2nd ed, Harcourt, Brace, 1963.

Gahegan, Sr. B., Pollard, Sr. M.B., and Kelly, W.A. Developmental psychology. Bruce, 1963.

Hunt, J. Intelligence and experience.

Martin, W.E., and Standler, C.B. Child behavior and development. Rev. and enl. ed, Harcourt, Brace, 1963.

Mussen, P.H., Conger, J.J., and Kagan, J. Child development and personality. 2nd ed, Harper and Row, 1963.

Redl, F. Mental hygience in teaching. 2nd ed, Harcourt, Brace, 1959.

U.S. Department of Health, Education and Welfare. Administration of elementary school program, K-3, for disadvantaged. Educating the disadvantaged under 6.

University of State of New York. The five year old and his thinking. Albany, 1966.

2.3. Activities

Note: It is suggested that the Apprentice Teacher report to the school the first day the teachers return in September to meet the Cooperating Teacher, to help in setting up the classroom, to observe materials to be used, etc.

2.3.1. The Apprentice Teacher is to assist the Cooperating Teacher in whatever manner requested.

2.3.2. The Apprentice Teacher observes, during first few days, general interactions between teacher and children:
-Teacher"s methods of handling children in large groups, of responding to individual child behaviors.
-personal concerns expressed by children in speech and ron-verbal behaviors: teacher's reactions and resolutions.
-expression of attitudes by children towards teacher, other children: verbal, postural, their dependence on comfortors, as thumbs and personal property, etc.

2.3.3. The Apprentice Teacher begins to observe micro-levels of behavior in one child for the remainder of block, in addition to general duties, starting with 2-minute intervals, varying types of behavior studied (organizationally solitary, in one-to-one relations, in large group, etc.;dynamically: at rest, during play, etc).

Apprentice teacher as part of this assignment begins to develop skills in distinguishing objective from subjective recording and reporting of behavior and acquirés understanding of value of both. Develops a "child study" report on child he has selected which includes, in addition to general and specific observational data outlined above, a snapshot, samples of child's drawings, if available, and information on: family background, early developmental history, present physical status, personal and moral development, social activities - relations with peers, siblings, relatives etc..emotional functioning.

Block III (8 hours class sessions plus conferences and services as Apprentice Teacher).

Theme: Knowing the School

1. Objective: To gain information about the specific school to which the student is assigned for Apprentice Teaching.

To develop an understanding of the use of the resources within the school that are available to the classroom teacher.

2. Implementation
2.1. Content:
2.1.1. Location of School
2.1.2. Physical plant, including special facilities
2.1.3. School enrollment, including number of pupils,ethnic background, related factors (mobility, Open Enrollment pupils, etc.).
2.1.4. Staff, regular and special, and role of each, as:
Supervisors - principal and assistants
Regular classroom teachers

Cluster teachers
Special teachers (Teacher of Library, Teacher of Audio-Visual Education, Teacher of Guidance, Teacher of Speech, Corrective Reading Teacher, Auxiliary Teacher, Non-English Teacher, Health Improvement Teacher, Teacher of CRMD, etc.)

2.1.5. Operating Procedures as:
Time schedule of school
Rules and regulations (fire and shelter drills, attendance regulations, entrances and dismissals, use of special areas, etc.)
Safety measures (accident prevention and reports, excursions, supervision of pupils, etc.)
School Handbook (lunch and bus regulations, lost and found items, etc.)

2.1.6. Parent and community participation, as:
Teacher aides
Class mothers
School Volunteer Program (Bd.Ed.)
Parent volunteers
Parents as resource people
Parents' associations

2.2. Readings

Student

Board of Education of the City of New York. Guide for Newly-Appointed Teachers in the New York City Elementary Schools. 1964. ($1.50)
Getting Started in the Elementary School -- A Manual for New Teachers. 1966.
Extended School Services through All Day Neighborhood Schools. ($1.50)

Instructor

Board of Education of the City of New York. By-Laws of the Board of Education of the City of New York.
Board of Education of the City of New York and United Federation of Teachers. Agreement July 1, 1965-June 30, 1967. Or agreement covering current year.

2.3. Activities:

2.3.1. The Apprentice Teacher prepares her own handbook for the school which will include:
---The History of the school and the community
---A picture of the school and physical features
---School personnel (supervisory, secretarial, custodian, UFT chairman, special teachers, aides, others).
---Collection of forms used in school
---List of special regulations, as use of exits, lunch procedure, bus regulations, etc.

Block IV (8 hours class sessions plus conferences and services as Apprentice Teacher).

Theme: Knowing the School Community

1. Objectives: To gain information about the school community in which the Apprentice Teacher is assigned.

   To develop a knowledge of the resources available in the community.

   To develop an understanding of the concerns of the community in relation to the school.

2. Implementation:
   2.1 Content:
   - 2.1.1. Description of school community in terms of location, size, etc.
   - 2.1.2. Composition of community (ethnic, socio-economic, religious, changes, etc.)
   - 2.1.3. Community resources
     - Playgrounds
     - Parks
     - Day Care Centers
     - Health services (clinics, health centers, etc.)
     - After-school programs (schools, churches, Ys, neighborhood houses, etc.)
     - Summer programs (educational and recreational)
     - Religious centers
     - Police and fire stations
     - Libraries
     - Post office
   - 2.1.4. Housing
     - Types
     - Ownership
     - Adequacy
   - 2.1.5. Business opportunities
     - Types and quality of service offered
   - 2.1.6. Community concerns, as evidenced in
     - Local newspapers
     - meetings
     - Action programs initiated by neighborhood or city
   - 2.1.7. Community leadership
     - Identification of community leaders and their roles

   2.2 Readings
   Student

   Local newspaper
   Parent Teacher Association Bulleting
   Board of Education. The Negro in American History. ($1.00)

Instructor

Department of Health - Division of Day Care, Day Camps, etc. The Directory of Day Care and Facilities for Children Under Six.

Board of Education of the City of New York. Guide to Some Educational Resources in the City of New York. ($1.50)
Guidelines for After-School Workshops. 1967. ($1.50)

2.3 Activities

Note: The activity described below can be done as a group activity.

2.3.1. The Apprentice Teacher develops a simple map of the community locating centers of community resources, such as the library, post office, fire department, Day Care Centers, Head Start Centers, welfare centers, settlement houses, etc.

2.3.2. Invite a recognized community leader, as the head or active member of the local Community Progress Center, ASPIRA, LENA, MEND, PRIDE, Youth in Action, HARYOU, to meet with the Apprentice Teachers, the College Supervisor, and a school supervisor. This should be arranged through the school principal.

1. What are the aims of the organization?
2. What assistance is being given to the community?
3. What assistance is planned for the future?

Block V (30 hours class sessions plus conferences and service as Apprentice Teacher).

Theme: Knowing how young children learn.

1. Objectives: To utilize and implement as effectively as possible the basic concept of learning as an extremely rapid and complex process during the period from 4-7, with slight deceleration and considerable adaptation between the ages of 8 and 11.

To understand learning as an individual and as a social process which can be stimulated and facilitated, as well as hindered, by the educational process.

2. Implementation

2.1 Content:

2.1.1. Types of learning: approaches to understanding of hierarchical learning models during the developmental period with particular emphasis on basic stimulus-response and simple associational learning patterns in the early childhood period; some focus on CA 8-11 in discussion of more sophisticated cognitive approaches.

2.1.2. Individual differences in learning: adaptation of types of learning not only to developmental level of early child learner but also to style of individual child who, for example, may be moving from preoperational to operational level while still in primary grades; variations within individual child in learning pattern.

2.1.3. Physical components of learning: development of sensory modalities, integration of and coordination with perceptual motor skills; relation of physical abilities to learning (ex: hand dominance and reading); sex-linked variables (ex: incidence of color blindness, stuttering in boys); use of classroom space to facilitate exploration and freedome; focus on CA 4-7 with some emphasis on CA 8-11.

2.1.4. Social-cultural components of learning: implications of language and "patois" barriers in learning to read; advantages for socio-economically deprived child in learning autonomous and independent behaviors; possible disadvantages in mastering academic-cognitive skills, in using adults as learning models; importance of identifying and stimulating individual learning patterns in early childhood before child begins to "mask" his learning style in complex social world of CA 8-11.

2.1.5. Emotional components of learning: variations in children in needs for individual encouragement and support in learning (ex; hostility of agressive-independent child to supervision-need of dependent-submissive child for much individual encouragement); implications of programed instruction and machine learning for adaptation to emotional variables; need for skillful adjustment by teacher of classroom "learning climate" throughout day - and school year - to capitalize on rapid shifts in emotional pace and style of children as individuals, and as group during early childhood period; some focus on less accelerated but more complex assimilative patterns of 8-11 year olds.

2.1.6. Perceptual-cognitive patterns in learning - overview of
2.1.7. theoretical models (ex. Bruner, Piaget) to explain learning with application to CA 4-7 (more practically oriented than 2.1.1): facilitating learning in young children by positive and negative reinforcement - developing skills of rewarding small increments of positive behavior in resistent children and building on positive responses; utilizing applications of various theories (i.e., perceptual-motor, stim-response, cognitive) in same learning period with different children, as appropriate, or different techniques with same child over period of time; learning to identify techniques utilized and, particularly in team teaching situations, providing immediate feedback for fellow teacher by experimenting with techniques for informal measurement of teaching effectiveness.

2.1.8. Utilization of materials and instruments appropriate to
2.1.9. learning types and content: when to use programed instruction, micro teaching, various perceptual materials, traditional texts, A-V aids, TV instruction; how to evaluate effectiveness of these learning materials and media; helping student identify hiw own learning styles and biases in material utilization; introduction of concept of instructional materials centers in which teacher would work out with instructional materials team the needs of each of his pupils for specific learning programs on a weekly basis - psychological implications for teacher in adapting to role as a "consumer" of learning materials.
2.1.10. Measurement of learning (similar to 2.1.12-14 under
2.1.11. Block II but with focus on specific areas of academic readiness and achievement rather than on developmental indices of motor ability and intelligence per se): introduction to standardized tests of readiness and early achievement, especially in language arts; development of skill in constructing simple tests for academic readiness and evaluation of basic learnings in language arts and mathematics; experience in administering both formal and informal tests; development of skills in utilizing results of teacher evaluation in constructing sequential learning environments.
2.1.12 Assessment by teacher and pupil: importance of involving
2.1.13 child in his assessment and restructuring of learning situation; involvement of child in reporting to parents; implications of teacher-parent contacts or lack of same for subsequent learning of child; utilization of various assessment techniques as part of total learning experience: report cards, parent conferences, letters to parents, open school week, work samples or folders of work sent to parents.
2.1.14 Homework as part of the learning process: types of homework;
2.1.15 adaptation to CA and MA levels, material to be learned, needs of child; expectations of parents: socio-cultural implications of homework and need for teacher-child adjustments to these expectations; homework as a form of intrinsic and extrinsic motivation; procedures for evaluating homework and integrating meaningfully into sequential learning process.

2.2. Readings
Student

Board of Education
Manual for reporting to parents.
Guidance of children in elementary school.

Devlin, C. Individual Parent-teacher conferences, 1945.

Furst, E.J. Constructing evaluation instruments. Longmans, Greene, 1956.

Fresco, J. School-home partnership and depressed urban neighborhoods. U.S. Government Printing Office.

McKee, P. Reading: a program of instruction for the elementary schools. Houghton Mifflin, 1966.

Tyler, L.E. Tests and measurements. Prentice-Hall, 1963.

Russell, DH, and Kays, E.E. Reading aids through the grades. Columbia University Press, 1959.

Wann, K. Intellectual Development in young children.

Instructor

Bruner, J.S. The process of education. Harvard 1961.

Frost, , and Hawkes, . The disadvantaged child: issues and innovations, 1966.

Klausmeier, H.J. Learning and human abilities: educational psychology. Harper and Row, 1961.

Reissmann, F. The culturally deprived child.

2.3 Activities:

2.3.1. The Appren tice Teacher develops and presents a five-minute lesson involving a specific, clearly identifiable type of learning, with outline of highly specific outcomes to be worked for, as well as rationale in terms of CA and MA, for use with a particular (small) group of children; to be presented to and critically evaluated by small group in college setting with modifications as needed before presentation in role as apprentice teacher.

2.3.2. The Apprentice Teacher develops an informal 5-10 minute test of either readiness or achievement for use with individual children. Again, presentation and evaluation in college setting would precede presentation in classroom setting, with review and analysis in cooperation with classroom teacher and children, as appropriate.

2.3.3. The Apprentice Teacher writes a sample letter describing a successful learning experience to the parent of the child observed during the first week. Use should be made of the child's anecdotal record

OR

2.3.4. The Apprentice Teacher writes a sample letter to a parent describing an important learning activity in progress that may need parent cooperation or understanding.

2.3.5. The Apprentice Teacher readies material for use in relation to two parent-teacher conferences: i.e., one relating to a child who is learning very effectively and one relating to a child who is having some difficulties.

2.3.6. The Apprentice Teacher prepares a bulletin board displaying and describing children's learning activities for a class parents' meeting or Open School Week, etc.

2.3.7. The Apprentice Teacher prepares homework assignments for one week keeping the following in mind: age, achievement level of children, parent expectation, resources in the home, planned followup and checking of assignment.

Block VI - (16 hours class sessions plus conferences and services as Apprentice Teacher)

Theme: Knowing the Components of a Desirable Classroom Atmosphere

1. Objective: To develop the ability to build a desirable classroom climate based on effective control related to the developmental needs of the children.

2. Implementation

2.1. Content:

2.1.1. Classroom control as related to the child, ages 4-7
Meaning of discipline (realistic setting of limits)
Use of rewards and punishment
Understanding of undesirable reactions
Ways of meeting these situations

2.1.2. Room organization
Value of effective organization
Aspects of organization
Furniture -- type and arrangement
Centers of interest
Storage of materials and supplies
(ease of use by children)
Routines basic to effective and maximum use
(children in on decision making, explaining each step in use, reviewing use, consistency, etc.)
Responsibilities assumed by children, teachers, para-professionals

2.1.3. Grouping
Characteristics - - flexibility in relation to need (social, emotional, cognitive) and activities to be engaged in.
Values of homogeneous and heterogeneous grouping
Use of grouping
When does the teacher begin to group?
Procedures for facilitating use of grouping
What competencies should the teacher have before she works with groups?

Interpretation to children and parents for placement for a limited time in a special group, changes in composition, etc.

What is a group?
Is it different for 4 - and 5 year olds and 6 - and 7 - year olds?

When is the whole class a group?

2.1.4. Record Keeping

Importance of accuracy
(Obligation to child, legal aspects)

Types of records
Attendance Book
Cumulative Record Card
Test Record Card
Health Record Card
Anecdotal Records
Others

2.1.5. Time

Importance of effective use
Avoid lengthy lineups for lunch, bus, toileting; avoid extended snack and recess periods, beginning-at-school day activities; etc.

Flexibility within large blocks of time
adjustments to fit group needs, unusual events.

Effective use based on careful planning and evaluation

Learning activities should be engaged in the same sequence daily during beginning school years
Development of effective routine, security, and time sequence.

2.2. Readings

Student

Board of Education of the City of New York.
Guide for Newly-Appointed Teachers in the N.Y.C. Elementary Schools. 1965 ($1.50)
Early Childhood Education. 1958-59. ($1.00)
Pre-Kindergarten Curriculum Guides. 1965-66 ($2.50)
School Record of Attendance.
Manual of Directions for Pupil Cumulative Record Cards for Elementary Schools.

Instructor

Board of Education of the City of New York. Supervisors Manual for Helping New Teachers. 1966. ($1.50)

2.3. Activities:

2.3.1. The Apprentice Teacher lists the effective routines established and adds in another list those routines she considers necessary but not developed to date.

2.3.2. Read the "Directions to Teachers" at the front of the Class Attendance Book and list the 10 most important directions to the teacher.

2.3.3. Describe two incidents that happened in the classroom during the week, giving the highlights of the child's behavior and the teacher's reaction. Give your own reaction to the way in which these situations were handled and the basis for your comments.

2.3.4. How does the teacher in the class to which you are assigned use grouping? Cite evidence of flexible grouping. Cite evidence of children's reaction to group they are in. How is the situation handled by the teacher? What records does the teacher keep of the needs, materials, progress of individual children within the group.

2.3.5. Refer to the sample days in the following publications:
Early Childhood Education, New York City Board of Education, 1958-59, pp. 23-20. (Cost $1.00)
Pre-Kindergarten Curriculum Guide. New York City Board of Education, 1965-66 pp. 16-16. (Cost $2.50)

Prepare a sample day to fit the needs of the class to which you are assigned.

Block VII (120 hours class sessions plus conferences and service as Apprentice Teacher)

Theme: Knowing the Importance of the Curriculum as the Vehicle for Learning

1. Objectives: To know the content of the seven curriculum areas taught to children from age four to seven.
To know how to adapt this curriculum to meet individual needs and interests.
To know how to integrate learning from the curriculum areas into meaningful experiences.
To know how to plan work on a daily and weekly basis drawing from the content of the seven areas.

2. Implementation:

2.1. Content:

2.1.1. Definition of Curriculum:
The curriculum consists of all the children's experiences in and out of school that are utilized to further the aims of education.
A curriculum based on the child's experiences and related to the life going on around him provides the best opportunity for the development of creative and manipulative powers, skills, knowledges, and attitudes.

2.1.2. Seven Curriculum Areas:
The curriculum is organized into seven areas as a means of grouping activities, experiences, and subject matter. The areas are:

Language Arts
Social Studies
Mathematics
Science
Art
Music
Health

2.1.3. Overlapping of Areas:
Any learning experience is an integrated experience in which several areas overlap. As, for example:
When a child builds an apartment from blocks, he learns:

Social Studies -- The way people live
Interdependence
Group interaction

Mathematics -- Relative heights
Sizes
Number of floors

Science -- Balance (blocks)
Pulley

To achieve a school day in which experiences flow virtually into one another, careful planning is required.* Materials and activities must be selected in advance so that basic skills and knowledges are presented in sequence and in accordance with the developmental patterns of child growth. Details relating to planning will be discussed later in this Block. It is important that selected aspects of planning be discussed whenever a new curriculum area is introduced. Therefore, it is suggested that the college supervisor familiarize himself with all the material in this Block before introducing a new curriculum area.

2.1.4. Area I: Language Arts: (Part I Grades Pre-K-2)
Importance:
Everything that is learned is highly dependent on the child's command of language. Effective use of language is crucial in everyday living and in attaining the goals of every curriculum area.
Scope:
Language Arts is divided into two areas:
Oral Communication -- Speaking and Listening
Written Communication -- Reading, writing and spelling

*For comprehensive suggestions see:
Guide for Newly-Appointed Teachers in the New York City Elementary Schools, 1965, pp. 42-43; Planning and Planbooks. 1961 (75¢).

Impact of the Child's Previous Experiences:
Through previous experiences within his family and within his community, the child has already acquired certain attitudes and habits in the use of language.
Questions for discussion relating to these are:
What experiences of the children in and out of school have facilitated motivation and the use of verbal communication?
What experiences within or outside of the home have retarded the child's ability to communicate verbally?
What are characteristic modes of verbal and non-verbal communication in a child's home?
What is his understanding of concepts and identification of objects common to our culture, such as the names of articles of clothing, colors, articles of furniture, etc.?

Sequence of Language Growth:
There is an actual sequence of language growth followed by all children at different rates. First, the child observes, then he listens; then he speaks. The ability to read depends upon the preceding. Writing, in turn, is dependent upon observing, listening, speaking and reading. How rapidly any given child progresses in language growth depends on the physical, intellectual, and emotional aspects of his personality, the home environment, and the school environment.

Language Arts and Other Curriculum Areas:
The study of Language Arts takes on many forms during the school day. It may involve listening to poetry, listening, telling, or reading stories, engaging in dramatic play, listening to a tape recorder, participating in rhythm and song, visiting within and about the school, and within and about the larger community.
The teaching of Language Arts permeates the entire school day for observing, listening, speaking and reading are a part of every curriculum area.
In the kindergarten and early childhood, music, art and physical activities lead to joyous self-expression affording the child not only the opportunity, but the impetus to communicate with those around him.

Activities

For Apprentice Teacher

1. Log one child's behavior on one day under the headings: Observing, listening, speaking, and reading. Remember that these occur in connection with content from many curriculum areas, such as music, art, and social studies.
2. Examine the cooperating teacher's plan for the week in the area of Language Arts. List specific blocks of instruction together with time allotments. Note the integration of learning activities with other curriculum areas.
3. Read or tell a story to a small group of children; read

a story to the entire class. Use puppets, dolls, or other realia.
4. Make a booklet of five listening games used by the cooperating teacher or devised by you. Test these games with small groups of children.
5. Use a tape recorder as children react to a new or different toy which you are presenting. Note the form of their conversation: sentence length, usage, fluency, and range of vocabulary.
6. For one week, engage in personal conversation five minutes daily with two children, one who is verbal and the other, non-communicating. Notice whether any changes occur by the end of the week so far as the children's ease and willingness to communicate are revealed. To what might any change be attributed?
7. Observe the cooperating teacher in communication with the class or with individual children. How does she listen to the children? How does she adapt her speaking rate, volume, and content to groups and to individuals? How much opportunity is given to the children to express themselves?
What direct instruction is there in listening or speaking?

2.1.4.1. The Teaching of Reading:
Objectives of the Reading Program in Kindergarten and Early Childhood:

To create a love of books
To develop necessary reading skills
To establish the habit of reading for information and enjoyment

Implementation

Methods of teaching reading have gone through many stages. Theory has progressed from an early concept of reading as the rec ognition of letter and syllable elements which make up words to the present concept of reading as thinking, stimulated by designs to which the mind reacts. Reading is the most important and most difficult of the developmental tasks of the young child. It is not a task for primary grades nor even for the elementary school alone, but will continue to be the responsibility of educators throughout the child's life as a student.

Aspects of Reading Programs:

Reading Readiness

This is a developmental stage of physical, social, and intellectual maturity at which an individual child becomes responsive to formal reading instruction.
The child speaks spontaneously and clearly with some degree of fluency.
The child is curious about reading, interested in picture words and books.
The child has adequate visual, hearing, and motor coordination. Reading instruction should be introduced

even though the child is not ready for a formal systematic approach. It should be reading based on experiences.

Experience Charts:
These are recordings of daily happenings within the child's life dictated by children to the teacher. Charts build a sight vocabulary of common words in a context which is meaningful to children. Experience charts are a bridge to reading from the printed page.

Basal Reading Systems:
These present a planned, systematic instructional program in beginning reading. They provide detailed guides to teachers, and constitute the most common reading programs in primary schools. Preferred systems use multi-ethnic stories and illustrations.

Word Recognition and Comprehension Skills:
While word recognition skills are important as tools for unlocking unfamiliar words, they are merely one aspect of the entire reading program. Undue emphasis on phonics may be misleading since English is not a phonetic language. However, familiarity with phonetic elements and word analysis techniques is a useful tool. Such skills are emphasized in programmed instruction. Comprehension skills involve the getting and interpreting of meaning. These are developed through questions about the sequence of time and place, relationship of cause and effect, the prediction of outcomes, etc.

Independent Reading Activities
Independent reading activities encourage children to select from a broad range of materials those which best suit his interest and need. Materials may include reading kits, pictures, children's newspapers and magazines, games, trade and text books. Children should be taught how to use this material. Readability level of such material should be below that at which the formal instructional program is being conducted.

Building Appreciation of Literature:
An important aspect of the reading program is the reading by the teacher to the children of poems, fables, and stories. Such readings should be dramatic presentations preferably to small groups within the class. Choral speaking and memorization of rhymes and poems serve many of the purposes of the Language Arts program.

Evaluating Children's Reading:
In informal evaluation through observation, a child's interest in reading is indicated covertly and convertly. Formal evaluations are made by the use of reading achievement tests and diagnostic tests. A reading record for each child is important in giving a picture of immediate needs.

2.1.4.2. The Teaching of Writing, Spelling

In the primary grades, the teaching of reading is closely related to the writing, spelling, and other aspects of language arts. For details relating to the teaching of these areas, note the publications listed under Reading.

2.1.4.3. Area I: Language Arts (Part II - Grades 3-6)

Enlarged focus

In grades 3-6, the child uses the skills, knowledges, and understandings gained in the early primary grades and is introduced to new learnings in the area as indicated below:

Overview of the Program --- Grades 3 - 4 *

ORAL COMMUNICATION

. Speaking

Maintaining, developing and refining the social and communication skills needed to talk with and to others in situations involving:

Conversation
Creative dramatics

Discussion
Interviews
Introductions

Planning
Reporting (spontaneous, planned)
Telephoning
Telling

Observing and Listening

Sharpening the powers of observation through firsthand experiences and visual media; maintaining or developing the habit of accurate, courteous, purposeful listening in situations involving:

Conversation
Dictation
Discussions
Directions
Music
Radio

Sounds
Stories
Poems
Telephoning
Television

WRITTEN COMMUNICATION

Expressional Writing
Reactions to books, music, stories, experiences
Jingle, poems
Stories, titles

Spelling
Levels 2 and 3 in the course of study
Other words
Word study, word building
Dictionary skills
Proofreading skills

Letter Writing
Friendly letters
Notes
Greeting Cards
Envelopes

Handwriting
Manuscript writing
Transition to cursive writing

Factual Writing
Announcements
Directions
Lists, labels
Notes, forms

Usage and Grammar
Sentence and paragraph structure
Correct usage
Capitalization
Punctuation

* Board of Education of the City of New York, Grade Guide, 3-4, Curriculum Bulletin, 1961-62 Series, p. 57

READING AND LITERATURE

Reading

Guided (assigned), free, and individualized reading activities
Vocabulary and concept development
Comprehensive or reading skills
Work-study skills
Reading in content areas

Literature

Poetry and prose of past and present
Group appreciation
Individual taste
Library skills

Overview of the Program --- Grades 5 - 6 **

ORAL COMMUNICATION

Speaking

Maintaining, developing, and refining the social and communication skills needed to talk with and to others in situations involving:

Conversation
Creative dramatics
Discussion
Evaluation
Interviews
Introductions
Planning
Reporting (spontaneous, planned)
Telephoning

Observing and Listening

Sharpening the powers of observation through firsthand experiences and visual media; maintaining or developing the habit of accurate, critical, purposeful listening in situations involving:

Conversation
Dictation
Directions
Discussions
Lectures
Music
Radio
Stories
Poems
Telephoning
Television

WRITTEN COMMUNICATION

Expressional Writing

Reactions to books, music, stories, experiences, Jingles poems
Editorials
Stories, titles

Letter Writing

Friendly Letters
Business Letters
Greeting Cards
Envelopes

Factual Writing

Announcements
Directions
Expositions
Note-taking
Outlines, summaries

Spelling

Words from levels 4,5, and 6 in Course of Study
Other words
Word study, word building
Dictionary skills
Proofreading skills

Handwriting

Manuscript writing (when appropriate)
Cursive writing

Usage and Grammar

Sentence and paragraph structure
Correct usage
Capitalization
Punctuation

** Board of Education of the City of New York, Grade Guide, 5 - 6, Curriculum Bulletin, 1961-62 Series, p. 59

READING AND LITERATURE

Reading	Literature
Guided (assigned)	Poetry and prose past and presnt
Free reading	Group appreciation
Individualized reading	Individual taste
Vocabulary and concept development	Library skills
Comprehension skills	
Work-study skills	
Reading in content areas	

Reading -- Grades 3 - 6

Objectives

The objectives at this level are:

To create a love for books and reading.
To develop the skills necessary for satisfactory reading and study, i.e., vocabulary and concept development, skills of word recognition, comprehensive, appreciation, work-study, and library usage.

Time Allotment

Three and one-half to four hours a week are given for reading instructions, library skills, and literary appreciation. Reading instructions is also given in connection with reading in other curriculum areas. The amount of time devoted to reading is increased in accordance with need.

Materials - Instructional Approach, Evaluation

A variety of materials is needed in every classroom. These materials should be moved in and out of the classroom in accordance with the changing needs of children.

Just as materials differ, so must the approaches used in the teaching of reading differ. It is suggested, however, that the beginning teacher use the basal reader approach and refer to the manual accompanying the series. As teaching ability increases, other approaches can be used.

Evaluation of the child's progress in reading is a continuous process. Both the child, the parent, teacher; and supervisor are involved in this evaluation. If a child is not making progress in reading, the causes must be determined quickly. Both formal and informal tests can be given, as: (1) informal textbook test; (2) standardized reading achievement test; (3) diagnostic test; (4) special tests accompanying basal readers, weekly readers, skill texts, etc.

Full details concerning the teaching of reading can be found in Grade Guide, 3 - 4 and 5 - 6.

2.1.4.4 Reading for Students: (Publications to be selected)

Language Arts

Bereiter, Carl, and Engelmann, Siegfried. Language Learning Activities for the Disadvantaged child.
New York: Anti Defamation League of B'nai B'rith, 1967 (60¢)

Board of Education of the City of New York. Handbook for Language Arts. Pre-K, Kindergarten, Grades One and Two.
1967 ($5.00)
Planning and Planbooks. 1961. (75¢)

Grade Guide 3 - 4, 1961-62. ($1.50)
Grade Guide 5 - 6, 1961-62 ($1.50)

Reading
Bond, Guy L. and Wagner, Eva Bond. Teaching the Child to Read.
New York: Macmillan Company, 1966.
Herrick, Virgil E..and Jacobs, Leland B. (editors.
Children and the Language Arts. En glewood Cliffs, N.J.
Prentice - Hall, 1964.
Lee, Doris M. and Allen, R.V. Learning to Read through Experience
New York: Appleton-Century-Crofts, Inc., 1963
Reeves, Ruth. The Teaching of Reading in Our Schools
New York: Macmillan Company, 1966.
Russel, David H. and Karp, Etta E. Reading Aids through the Grades New York: Bureau of Publications, Teachers College, Columbia University, 1951.
Strickland, Ruth. The Language Arts in the Elementary School
Boston: D.C. Heath & Company, 1965.
Wills, Clarice de Chent, and Stegeman, William N. Living in the Kindergarten. Chicago: Follet Publishing Company, 1956.

Spelling
Board of Education of the City of New York. Teaching Spelling -
Course of Study Manual, 1966. ($1.00)
Spelling Lists A (20¢), B (30¢), C (25¢).

Handwriting
Board of Education of the City of New York. Teaching Handwriting.
1960-1. ($1.00)

Radio and Television
Board of Education of the City of New York. Radio Manual
WNYE-TV, 1966-67.

2.1.4.5 Activities

Get an overall picture of the reading program at your school by (a) interviewing the reading specialist or the supervisor in overall charge of the reading program. What are some of the methods in use in the school as a whole and particularly in the classroom? In your classroom, what percentage of the reading time is spent on experimental reading, skill teaching, Basal reading, independent activities, and literary appreciation? Give an example of each form of reading activity as evidenced in your classroom.

Prepare a series of lessons to be given to a small group of children, each of which is an example of one of the reading phases, such as readiness, Basal, a word or skill lesson, literature lesson. Present one such lesson daily to a group of children or to the class.

Make a survey of reading materials available in your school for your class. Record information about these in booklet form under the following headings: (Title, Publisher, Purpose, Comments)

Basal System - For Beginning Readers in Grade One
For Beginning Readers in Grade Two

Word Analysis Skill Materials

Comprehension Skill Materials

Independent Activities Materials
Library Books -- how many, what kind
Children's Newspapers or Magazines
Teacher-made Materials
Others

Instruments for Formal and Informal Evaluation

Teacher Reference Books in Reading and Literature

2.1.5.6. The Teaching of Mathematics

Introduction

The teacher plans a program through which children will be able to develop mathematical concepts or ideas, but at their respective levels of understanding. The teacher also plans to focus children's attention on specified mathematical content arising from the materials of the experience. Concept of position, general size, set and subsets, and quantity continue to develop throughout this period. The teacher uses correct mathematical terminology. The children gradually will also use such language.

The apprentice teacher must be knowledgeable of the pertinent mathematics as well as the correct mathematical terminology before planning to teach this area of the curriculum.

Scope and Sequence (Pre-Kindergarten - Grade 1)

Number names around us: Readiness for Numbers.
One to One Correspondence Between Sets of Objects.
Perceiving the Number in a Set and its Subsets without Counting.
Perceiving the Number of Objects in a Set and its Subsets:
Counting, Combining, and Separating.
Number Line Concepts: Early Level of Development.
Geometric Concepts and Fractional Parts: Exploration and Experimentation.

Scope and Sequence (Grade II)

a. Measurement - Provide opportunities for children to engage in experiences which will help them develop concepts, judgments, and a language pertinent to measurement. Non-standard and some standard units of measure will be developed.
b. Numbers and Numerals - A number has many names.
c. Order and Relations, - Develop a deeper understanding of the natural order of whole numbers.
d. Operations -
Addition - Adding is the putting together, the combining, the joining of groups into one group.
Subtraction - Subtraction is the separation of a group into two sub-groups.
e. Fractions - Children continue to deal with fractional parts of real things in experience situations.

Methods and Materials (Pre-Kindergarten - Grade II)

Teachers use a variety of procedures to guide children at varying levels of readiness for developing, mathematical concepts.
Work play centers provide opportunities for the teacher to call attention to mathematical aspects of the materials being used on the level of each child's understanding.
During the early weeks of the school year Pre-kindergarten and Kindergarten teachers emphasize mathematical ideas with one child at a time in a work--play center. Grade One teachers may work at this time with a small group.

Later in the school year the Prekindergarten and Kindergarten teachers work with two or three children in a group, Grade One teachers with three or more in a group.
Materials found in the classroom provide opportunities for mathematical experiences, such as large blocks, table blocks, science materials, dishes, table games, wheels, nuts and bolts, containers, napkins, strawx, etc.

Resources

Materials brought from home by teacher and children, such as boxes, cans, buttons, food items, science items etc.
Experience outside of classroom, such as, number names on school buses, automobile license plates, street signs, apartment buildings etc.

Use of Nursery rhymes, stories, readers, etc., that lend themselves to mathematical experiences.

Mathematics and Other Curriculum Areas

Growth in mathematical concepts is dependent upon the child's growth in the language arts. Observation, listening, verbalization as well as ability to understand the written symbol will either foster his growth in mathematics or severely hinder it. Freedom to experiment, to discover for oneself, to experience and time to internalize the experience will have a direct effect on growth in mathematical concepts as well as science.

Mathematics (Part II Grades 3-6)

Objectives

1. Development of skill and speed in arithmetic computation.

2. Understanding and development of number concepts (sets, set relations, set operations)

3. Algebraic concepts including the study of n umber sentences, true, false and open, and in the case of open sentences their truth sets and their graphs; introduce via placeholders the concept of variables and operations upon variables.

4. Geometic concepts are developed to give children a rich background of experiences with geometry, to help them in their intermediate and secondary school mathematics.

Implementation

Scope and Sequence

Commutative, associative, and distributive laws. The multiplicative property of 1. The additive and multiplicative properties of 0. Arithmetic of signed numbers.

For comparative purposes
- a) Modular arithmetic, based on primes and on non-primes.
- b) Finite fields.

Prime numbers and factoring. Euclidean Algorithm, greatest common divisor.

Explicit study of the decimal system of notation including comparison with other bases and mixed bases (e.g. miles, yards, feet, inches).

Study of algorithms for adding, subtracting, multiplying, and dividing both integers and rational numbers, including "original" algorithms made up by the children themselves.

Methods for checking and verifying correctness of answers without recourse to the teacher.

Considerable experience in approximations, estimates, "scientific notation," and orders of magnitude.

Simple algebraic equations and inequalities.

Mensuration formulas for familiar figures.

Approximate determination of ++ by measuring circles.

Latitude and longitude.

Explicit study of the relation of open sentences and their truth sets.

Empirical investigation of many-times-repeated random events.

Readings for Student

Board of Education, City of New York. MATHEMATICS PRE-KINDERGARTEN, KINDERGARTEN, GRADE 1, PART I (1966), PART II (1967) Series (Cost $1.50)

Deans, Edwina. Elementary School Mathematics, Bulletin 1963 No. 13. AIDS FOR MATHEMATICS EDUCATION SPACE-ORIENTED MATHEMATICS FOR ELEMENTARY GRADES 1964, CIRCULAR 741. U.S. Office of Health, Education and Welfare, Washington, D.C., U.S. Government Printing Office

Board of Education of the City of New York. Teaching Mathematics Grade 2, 1964. ($2.00)

Readings for Instructor

Piaget, Jean. THE CHILD'S CONCEPTION OF NUMBER. New York. Humanities Press, 1952.

Stern, Catherine. CHILDREN DISCOVER ARITHMETIC. New York. Harper and Row, 1949.

Bruner, J.S. THE PROCESS OF EDUCATION. Cambridge, Harvard University Press, 1960.

New York State. A Parents" Guide to Elementary School Mathematics. 1966.

Activities for Student

1. Record a ten- or fifteen - minute segment of the actions of 2 or 3 children in the house play or block area. Study notes taken and cite implications for teaching math. How could you as a teacher focus on math if you were free to work with this small group of children? Based on your observation what would you plan as the next step for this small group?

2. What materials are in the classroom that you could use in helping children in their growth in developing the concept of size?
3. Plan a mathematics lesson integrated with science for the particular children or group of children in the class you have been assigned.
   Consideratin should be given to age and previous experience, as well as the total day.

2.1.6. The Teaching of Social Studies (Part I - Grades PreK-2)

Introduction

The young child who is entering school for the first time has already learned some things about himself, his home, and the world around him. If he has attended a day care center, a summer day camp, or a prekindergarten, he has had additional opportunities for some basic experiences, opportunities for development of self-image and adaptation to a group other than the family.

With this in mind, the teacher takes time at the beginning of the school year to consider the background and needs of the pupils in the class in the area of social studies and to plan experiences to meet these needs. She also keeps in mind the following overall objectives of the social studies program which are broken down into specifics for each grade level in the revised course of study in history and social sciences, Pre-Kindergarten-12.*

Overall Objectives

- To teach concepts rather than the accumulation of information.
- To teach children to ask questions, to use materials of many types in obtaining answers, to evaluate answers before coming to a conclusion.
- To develop skills and simple research techniques.
- To provide the abilities and knowledge needed to understand and meet, in so far as the child's ability permits, the problems surrounding the child.
-To develop ability to use resources of many types.

Scope and Sequence

The social studies program for early childhood grades is not a separate arrangement of content and experience. Instead, it is part of the entire curriculum and all school experiences.

To facilitate use by the teacher, the theme for each grade level is broken down into the topics listed :

*Revised Course of Study, History and the Social Sciences, Pre K-12 Board of Education, 1967 (Note: Material for grades K, 1, 5, 6, and 9 distributed Sept., 1967; other grades, Sept. 1968.

Prekindergarten: Orientation to the World in Which We Live

Developing individuality and Self-Respect
Relating to People
Participating in Responsibilities and Anticipating Future Rewards
Observing how Weather changes affect What We Do
Realizing That Some People and Places Are Nearby and Some Are Far Away
Understanding That Some Days are Special Days

Kindergarten: The Child in His School and Home Environment

We Live Together in the Classroom
We live together in the School and Its Environment
How the Family Meets Its Needs
Some Needs Are Met by People Far Away
We Adapt to Change
We Observe Special Days Together at Home and in School.

Grade One: Living Together in the Community

People Live in Groups
Many Workers Supply Many Services
Government Supplies Services to Meet People's needs
Communities Are Interdependent
Changes Occur in the Community
Communities Observe Special Days

Grade Two: How People Live in City Communities Around the World

How People Live in and Around New York City
How People Live in Other Cities in the United States
How People Live in Other Cities of the World
Communication Brings People of the World Closer Together
Transportation Brings People Closer Together
People Around the World Observe Days and Customs.

Methods and Materials

The objectives of the social studies program in the elementary grades provide for the teaching of geography, history, civics, and current affairs.
These areas are focused on through the following:

- Experiences of the pupils as they engage in social living activities in class, school, home, community.

  Example:
  Opening Exercises - flag and patriotic observances
  Taking trips
  Selecting classroom decorations
  Planning an activity

- Broad topics suggested for each grade, around which the basic experiences are organized. (See 2.1.6. Scope and Sequences)

While the unit approach to social studies is an effective form of organizing learnings in social studies, it is recommended that, in the beginning, whole class teaching be used. Focus in these beginning days may be on:
- Important events in the classroom, the school, the community.
- Map skill lessons (map of room, school,community).
- Lessons from stories in readers.
- Audio-visual lessons.
- Lessons based on walks in the school and community.

As the beginning teacher grows in competence, she organizes the social studies content around a unit or theme. Specific details concerning unit development are outlined on pages 135-142, GETTING STARTED IN THE ELEMENTARY SCHOOL.*

Social Studies Skills

Certain skills are regarded as basic to growth in social studies. These skills are listed in the chart included in the revised course of study in social studies cited previously. It should be emphasized that the placement of a skill at a particular grade level should be modified to fit the needs, abilities, and prior experiences of individual pupils and classes.

2.1.7. The Teaching of Social Studies (Part II - Grade 3 - 6)

Introductive

The child in grades 3 - 6 has even greater opportunity than the younger pupil to work independently in order to gain new insights, understandings, and information in the area of social studies. He also has greater ability to use original documents as the source of information and to work with other pupils in obtaining answers to pivotal questions.

It is most important that the teacher know the skills children need, plan for the teaching of these skills, for practice, and for evaluation.

Details are listed in the Grade Guides 3 - 4 and 5 - 6 as well as in the Revised Course in History and the Social Sciences.

Scope and Sequence

The revised course of study (preliminary) contains the following topics:

Grade 3: CULTURES AROUND THE WORLD

How People Live in the Tropical Rainforest (Comparative case studies of the Indians of the Amazon River Valley and the Bantus of the Congo Basin).

*Board of Education of the City of New York, GETTING STARTED IN THE ELEMENTARY SCHOOL, 1966. (Cost $2.50).

How People Live in the Desert (Comparative case studies of the Bedouins of the Arabian Desert and the People of the Negev).
How People Live on the Plains (Comparative case studies of the Plains Indians of the United States and the Gauchos of the Argentine Pampas).
How People Live in Marine Lands (Comparative case studies of the People of the Netherlands and the Maoris of New Zealand)
How People Live in Mountain Regions (Comparative case studies of the People of the Swiss Alps and the Inca Culture of the Central Andes).
How Man Shows His Inventiveness.
How we Practice Good Citizenship.

(Note: Other comparative case studies may be substituted for those listed above).

Grade 4: AMERICAN PEOPLE AND LEADERS: HOW THE UNITED STATES BEGAN AND GREW
(Biographical Studies of Leaders and Ethnic Contributions)

How People Discovered and Explored the Americas
How People Settled and Developed Colonies in North America
How People Established the United States of America
How People Developed Our Nation (to 1900)
How People Have Been Leading Us Into the Great Society

Grade 5: OUR WORLD: GEOGRAPHIC AND ECONOMIC STUDIES
(Note: Grade 5 and 6 comprise a two-year Sequence)

How the People of the United States Use Their Geography
What the People of Canada Are Doing with Their Geography
How Latin Americans Use Modern Technology
How The People of Europe Are Developing New Economic Relationships in the Light of Modern Geography
(Select one of the following two themes)
How the People of Asia are Using Their Geography
How the People of Africa are Using Their Geography

Grade 6: OUR WORLD: EARLY CIVILIZATIONS

How We Learn About the Past
How Modern Man Developed
How Western Civilization Developed
(Select two of the following four themes)
How Civilization Developed in India
How Civilization Developed in China
How Civilization Developed in Pre-Columbian America
How Civilization Developed in Africa

Readings:

Student

Board of Education. EARLY CHILDHOOD EDUCATION, CURRICULUM BULLETIN No. 5, 1958-59, pp. 89-105
PREKINDERGARTEN CURRICULUM GUIDE, Curriculum Bulletin No. 11, 1965-66, pp. 93-102
REVISED COURSES OF STUDY IN HISTORY AND THE SOCIAL SCIENCES, K-1, 1967.

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Association for Early Childhood Education International, BASIC HUMAN VALUES FOR CHILDHOOD EDUCATION. Washington, D.C. 1962.
Play Schools Association, Inc. TRIPS FOR CHILDREN, Revised edition New York. 1964.

Activities:

1. Select one school day. List the many ways in which some aspects of social studies is being taught to pupils in the class.
2. Make a simple map of the classroom or school block you may develop with pupils in grades 1 or 2. Be ready to explain:
   What work may be done by the children preceding the making of such a map?
   How may the map be made by pupils? When?
   How may the map be used?
3. Select the subtopics in the course of study the pupils in the class are discussing or will discuss next. Prepare a scrapbook which will be of value to the children.
   How can such a book be used?
   How would you initiate such a project with the children?

2.1.8. The Teaching of Science

Introduction

Science meets the needs of all children since it offers them opportunities to explore, to manipulate, and to discover as they try to find the what, how, and why of the world around them.

Children are natural scientists with a continuing "why" which leads them to question - about their concerns and curiosities
to investigate - to see what happens if...
to manipulate - with fingers, arms, legs, and total body
to observe - with all their senses
to classify - by collecting, selecting, grouping, and comparing
to report - by telling and showing.

Objectives

To enable children:

To set up experiments
To state the problem
To suggest ways to solve a problem
To manipulate materials
To record data
To interpret data
To generalize from the results of an experiment
To state new concepts
To apply concepts learned.

Scope and Sequence

There can be no one best sequence for the teaching of learnings related to the science topics listed in the scope and sequence that follows.
The placement, depth, and duration of any science topic depends on many variables: pupil interest, maturity, experiential backgrounds, language difficulties, unexpected and unusual happenings.

There are certain constants, however, which the teacher can depend on in planning science:

a. the logical sequence of science concepts
b. the sequence of themes which have been planned in other curriculum areas
c. the changing seasons, holidays and other special days.

Pre-Kindergarten Scope and Sequence

At this level scientific principles are explored in relation to

1. Weather
2. The Sandbox
3. Wheels
4. Blockbuilding
5. Body movement
6. Sounds
7. Pets
8. Magnets
9. A Pan of Water
10. Seeds and Plants
11. Collecting Things
12. Things that fly

Grades K - 2

At these levels, scientific principles are explored in relation to:

1. Magnetism and Electricity
2. Earth in Space
3. Living Things
4. Sound and Light in Communication
5. Weather
6. Motion and Force in Transportation
7. Earth and Its Resources

Methods

In developing learnings in the area of science, two components are combined:

a. process (The child measures the length and direction of a given shadow at different times) and
b. knowledge (The child generalizes that the sun changes its position in the sky during the day).

While children are discovering, they should be finding out some things which, for one reason or another, they want and need to know.

Following are some of the processes in scientific investigations. The order does not suggest method of procedure.

1. Asking questions which --
    a. draw on children's home experiences
    b. lead to trips and surveys
    c. lead to close observation
    d. provoke experimentation
    e. help children group and classify
    f. lead to measurement and collecting of data
    g. challenge children to propose ways of finding out
    h. ask children to predict
    i. challenge children to propose explanations

2. Experimenting

An experiment differs from an experience in that an experiment is a cooperatively developed enterprise (teacher and children) with appropriate materials set up for the purpose of finding the answer to a particular problem.

Guidelines for experimentation

a. The setting - provided by specific situations
b. Getting into Action - active participation by children
c. Making it Scientific -
    1. Use a control
    2. Test only one variable at a time
    3. Record, report and summarize results of experiment.

3. Predicting - includes the proposing and testing of them.

4. Observing - makes use of all the senses.

5. Interpreting - includes identification of sensory stimuli; comparison of sizes, weights, shapes, textures, etc., of common objects; distinguishing one stimulus from another; observation of changes in color size, odor state, shape, and position.

6. Measuring - includes planned instruction in the process of measurement so that the child understands the concept of a unit of measurement.

7. Keeping Records - includes written words, maps, photographs, tape recordings, drawings, graphs and in collections of objects.

8. Classifying - involves collecting and organizing things.

9. Generalizing - based on the observations, experiences and experiments of the children and involves careful, critical thinking.

Materials and Resources

1. Science materials supplied by the school: magnets, magnifying glasses, thermometers, etc.
2. Kindergarten materials: blocks, paints, toys etc.
3. Classroom materials: window pole, paper, paper clips, drinking straws, empty milk cartons, etc.
4. Child - contributed materials: empty spools, leaves, pebbles, plastic containers, shoe boxes, etc.
5. Neighborhood stores: hardware, variety and pet stores, etc.
6. Neighborhood environment: gardens, parks, beaches, ponds, streams, construction sites, hills, vacant lots, rocks, soils, waterfront, animals, sounds, sights, odors, machines at work, transportation, focus of artificial light, etc.
7. School garden
8. Museums, the ASPCA, botanical gardens, the zoo, etc.
9. Audio-visual materials:
   - chalkboard, felt board, bulletin board
   - motion pictures, filmstrips, transparencies
   - magazines, newspapers
   - charts and models
   - radio, tape recordings, phonograph records
   - television

Science and Related Curriculum Areas

It is important that the correlation between science and other curriculum areas be emphasized, as:

Science Reading

1. Vocabulary development - oral and written
2. Experience Charts, oral and written reports, graphs
3. Exhibits for class and school - titles, captions, labels, descriptive texts
4. Selected reading materials: textbooks, trade books, reference books, magazines and free materials.

Science and Mathematics

Measurement - size, weight, length, time, temperature.
Numbers concepts

Science and Music

Sounds

Science Grades 3 - 6 (Part II)

Scope and Sequence

1. Magnetism and Electricity
   Grade 3--Electricity in Everyday Life
   4--Finding Direction with a Compass
   5--Batteries and Bulbs
   6--Generating Electricity and the Study of Electromagnets, Generators and the Electric Motor

2. Earth in Space
   Grade 3--The Earth and the Sun
   4--Our Nearest Neighbor in Space: The Moon
   5--Our Solar Family
   6--(see special units at end)

3. Living Things
   Grade 3--The Needs of Plants and Animals
   4--Getting New Plants
   5--The Interrelationship of Living Things
   6--Reproduction in Animals and Plants

4. Sound and Light in Communication
   Grade 3--How Sounds are Made
   4--Sounds Travel; Sounds Can Be Recorded
   5--Reflecting Light
   6--Light Lenses and Camera

5. Weather
   Grade 3--Observing and Measuring Weather Changes
   4--Weather and Clumate from Season to Season
   5--Weather from Place to Place
   6--(see special units at end)

6. Motion and Force in Transportation
   Grade 3--Friction, Gravity and Motion
   4--Moving Things More Easily
   5--Making It Go
   6--(see special unit at end)

7. Earth and Its Resources
   Grade 3--Rocks and How We Use Them
   4--The Water We Use
   5--How Man Changes Materials
   6--(see special unit at end)

Aerospace--includes Earth in Space, Weather, and Motion and Force in Transportation -- Grade 6

1. Air around us
2. Going up in the atmosphere
3. How does man get away from the earth
4. Weather and flight
5. Exploring space

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Blough, Glenn O. and Schwartz, Julius ELEMENTARY SCHOOL SCIENCE AND HOW TO TEACH IT 3rd ed. New York: Holt, Rinehart and Winston, 1964.

Hochman, Vivienne and Greenwald, M. SCIENCE EXPERIENCES IN EARLY CHILDHOOD EDUCATION New York: Bank Street Publication, 1964.

Navarra, John G. THE DEVELOPMENT OF SCIENTIFIC CONCEPTS IN A YOUNG CHILD New York: Bureau of Publications, Teachers College, Columbia University, 1955.

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Hennessy, David E. ELEMENTARY TEACHER'S CLASSROOM SCIENCE DEMONSTRATION AND ACTIVITIES Englewood Cliffs, New Jersey: Prentice-Hall, 1964.

Board of Education, City of New York. SCIENCE GRADES K-2 No. 7, Series 1965-1966 (Cost $1.50).
PRE-KINDERGARTEN CURRICULUM GUIDE, No. 11, Series 1965-1966 (Cost $2.50).

Activities

1. Over a period of 2 days, listen to and record questions children ask which require scientific explanations. Outline a plan for a lesson you could teach for answering two of these questions.

2. Observe a science lesson.
   Describe: Aims and Objectives
   Methods and Materials
   Outcomes.
   Evaluate in relation to:
   - suitability to age of child
   - interest and involvement of the children
   - aspects of lesson which could be improved
   - aspects of lesson worthy of use again.

3. Plan and teach a lesson on the same topic: e.g., Magnetism, to a kindergarten class and to a second-grade class.

2.1.8 The Teaching of Health Education Pre K-2

Introduction

Health Education is concerned with the development of each child's well-being: physical, emotional and social. There are three phases to the health education program: health guidance, health instruction and physical activities.

Scope and Sequence

Health Guidance:

includes procedures designed to: determine the health status of the child; to obtain his cooperation and that of his parents to prevent the spread of communicable disease; and to secure the correction of remedial physical defects.

a) School Health Program which uses:
   - Daily Health Observation
   - School Health Days
   - Use of Cumulative Health Card to study past history and record current data
   - Recognition of physical and emotional problems;

b) Knowledge and Use of School Resources
   - School Health counselor
   - District Health Education Counselor
   - Dental Services and Forms
   - School Health Councils
   - Vision Screening
   - Audiometer Testing
   - School Physician and Nurse

c) Administrative Procedures

Health Instruction

is concerned with all varieties of experiences which help children to develop desirable patterns of health behavior at home, in school, and in the community.

Topics of instruction include
The physical environment
Cleanliness and Health Protection
Foods and eating practices
Body structure and function
Dental Health
Care of the eyes
Sleep and rest
Safety and first aid.

Physical Activities

Through the physical activity program, children are helped to build muscle tone, to develop good carriage and to establish

desirable social attitudes. It is planned according to the child's stage of development and is related to age, body build and neuromuscular control.

Methods and Materials

Health Instruction

At this level, health teaching should be informal, based on situations as they occur as well as through planned activities. Planned activity, however, is essential to give the child a well-rounded background of basic information. Discussion and unit activities can be used as principal techniques along with others.

Physical Activities

Expressive movement - movement patterns, rhythms, creative activities, themes, song plays, folk dances.
Games for the Classroom
Self testing activities
Athletics and games

Resources:

Board of Health personnel assigned to school
Health staff in the school
Use of the environment for health instruction
Community resources - parks, ball fields, etc.

Related Curriculum Areas:

Music - songs and dances
Science - body structure
Art - drawings of dances, games, etc.

Health Education Grades 3 - 6 (Part II)

Health Instruction

Scope and Sequence

The Physical Environment

Daily routines can aim to develop desirable attitudes and habits relative to the disposal of fruit skins, nut shells, candy wrappers, tissues and other waste materials in school, on the street and in public conveyances. In addition, children can learn the factors that provide good lighting and heating, the proper way to ventilate a room and the importance of assuming responsibility in helping to keep their rooms at home neat and clean.

Cleanliness and Health Protection

Children may want to know the reasons for health practices. They can be expected to assume increased responsibility for their personal cleanliness and for protecting their health as well as the health of others. Their normal interest in being accepted members of a group may serve as motivation for maintaining desirable standards of neatness and cleanliness and for cooperating in measures that afford health protection.

Foods and Eating Practices

Learning experiences include planning balanced meals, budgeting, developing consumer skills involved in the purchase of food and social skills relating to food and eating practices.

Body Structure and Function

Study some of the factors that contribute to good body functioning may begin as early as the third grade. Study of the functions of the skeleton, the circulatory, respiratory and digestive systems is intended for sixth grade children who are approaching adolescence. Individual differences in growth patterns should be stressed.

Dental Health

At this level they can be expected to assume increasing responsibility for the care of their teeth. As they progess through school, they should learn why brushing teeth, visiting the dentist regularly and selecting proper foods are essential to dental health.

Care of the Eyes

Television can be the basis on which teachers of children in grades 3-6 create an awareness of the importance of optimum eye health. With this as a beginning, instruction can center around protecting the eyes at work and play; learning about foods that help maintain good eyesight; developing wholesome attitudes toward the wearing of glasses when prescribed and the need for working in a good light. They also need to be reminded to keep their eyeglasses clean, to remove them during play periods or to wear protective goggles if glasses must be worn. They should learn the correct way to throw a ball as well as the safety procedures to be observed in handling work tools and arts and crafts materials.

Care of the Ears

An appreciation of the value of good hearing and an understanding of the major hazards to hearing, including ways of avoiding them, should be developed. Children at this age level can be expected to assume increasing responsibility for proper hygiene of the ear, safety precautions while swimming or at play and reporting an earache promptly to an adult. They can also be expected to accept and cooperate with those who have hearing impairment and those who wear hearing aids.

Sleep and Rest

Children's interest in sports can lead to discussions of the training periods for athletes, emphasizing the importance of adequate sleep in relation to top performance. The desire, on the part of the child, to emulate his heroes in the world of sports, to excel in sports or to be an accepted member of the team, may stimulate his interest in applying to his routines at home what he has learned in school.

Safety and First Aid

Children are encouraged to assume increased responsibility for their safety and the safety of others. They should begin to understand the reasons for law enforcement and the need for cooperating with policemen and firemen. They begin to realize that certain situations are hazardous and that it is dangerous to take unnecessary risks such as hitching on the back of trucks. They should know the importance of seeking the aid of an adult when the accident occurs.

Stimulants and Tobacco

In grades 3-4 there is discussion of the importance of milk and fresh fruit drinks; of the reasons for avoiding tea, coffee and alcoholic beverages; and of the dangers of accepting food, candy, or invitations from strangers. In grades 5-6, the harmful effects of tea, coffee, and alcohol; the effects of tobacco on athletic performance; the importance of participating in social and recreational activities at home and at approved community centers; the importance of fresh air and outdoor exercise; and the evaluation of advertisements for alcohol and tobacco are discussed.

Physical Activities

Scope and Sequence

Expressive Movement
- Movement Patterns
- Rhythms
- Creative Activities
- Themes
- Song Plays
- Folk Dances

Games for the Classroom

Self-Testing Activities
- According to grade level

Athletics and Games
- Games without equipment
- Games with equipment
- Squad activities (unrelated to sports)
- Relay races
- Track skills

Net games
Playground Baseball
    Skills
    Application of skills
    Lead-up games
Basketball
    Skills
    Application of skills
    Lead-up games
Handball
    Skills
    Lead-up games
PSAL
    Proficiency Tests
    Athletic Badge Test
    Class Athletics
    Interclass games and intramural tournaments
Invitation games
Field Days
Play Days
Swimming

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HEALTH GUIDANCE IN ELEMENTARY SCHOOLS. Curriculum Bulletin Series 1959-60 Series No. 3, New York: The Board of Education

HEALTH TEACHING IN ELEMENTARY SCHOOLS. Curriculum Bulletin Series 1955-56, No. 5. New York: The Board of Education

PHYSICAL ACTIVITIES FOR ELEMENTARY SCHOOLS. Curriculum Bulletin Series 1956-57, No. 9. New York: The Board of Education

PRE-KINDERGARTEN CURRICULUM GUIDE. Curriculum Bulletin Series 1965-66, No. 11. New York: The Board of Education

Activities:

1. List and describe the functions of the Health resources available in the school in which you are student teaching and the ways in which a teacher can avail himself of their services (include procedures in referring a child to the school nurse, etc.)

2. Write out the directions you would use to explain eight physical activities (including games) to Pre K-2 children.

3. Observe three health education classes of different types, two of which should involve physical activities
   Describe in detail:
   a) Motivation

b) Routines and procedures
c) Implications for discipline note
Note: positive things the teacher did to insure good order; suggestions which might improve the situation.

2.1.9. The Teaching of Art Pre K-2 (Part I)

Introduction

Art is an essential area of school experience for all children because it helps to develop the whole child through the integration of his motor, emotional and mental capacities.

The arts are not so much a body of subject matter as they are a creative way of doing things - a way which enlists the imagination of the child and impels him to learn more about things and to interpret and judge them from his own experience.

Goals Pre K-2 Art

Through the arts, the child
- is valued as a unique individual.
- finds a means of self-realization.
- develops personal sensitivity and reliance on his own taste and judgment.
- has his inner resources tapped in such a way that he is given a sense of personal satisfaction and confidence and often develops a lifelong interest.
- has the opportunity for the constructive release of feelings.
- becomes aware of the value of orderliness, planning and care of materials.
- broadens his appreciation.

Prcgress in art will be consonant with the child's natural stages of mental, emotional and manipulative development. The urban child is often seriously handicapped but for many, art may become for the time being, their most direct and gratifying form of expressing their ideas and feelings. The teacher must judge each child's readiness for new media and new expreiences in terms of his accomplishments, interest span, imagination, ingenuity, and self-reliance.

Scope and Sequence Art Pre K-2

In art, children learn best by experimenting with materials. They gain the confidence to think, feel and express themselves when they work at their own pace and at their developmental level.

There are two major types of art experiences in the program:

1. Expressing feelings and ideas through painting, drawing and poster designing;
2. Designing and constructing with various materials (crafts.).

Under teacher guidance, the children experiment with these materials and discover for themselves the possibilities and limitations of each. This leads the children to develop in inventiveness and an ability to plan and make articles of original design and construction. All art experiences are carried on interdependently and are related to the curriculum as a whole.

Methods and Materials

Developmental Stages in Art Activities

Studies of children's art work reveal that there are stages of growth and development through which children pass in each media. In grades Pre-K through 2, the stages are generally limited to 3:

Stage 1. Manipulative and exploratory: The child, through handling and trying out the specific materials, gets the "feel" of them and discovers what can be done with them.

Stage 2. Intuitive Design: The child gradually combines materials, colors, etc. to form simple, and often, non-realistic arrangements and designs.

Stage 3. Intended or conscious design: The child at this stage has in mind something definite he wants to do with the materials at hand.

Painting:

Materials: Tempera paint, 1" and ½" bristle brushes, newsprint, easles or oilcloth, covered tables, capped containers for paint, tall containers for brushes, sponges, manila paper, plastic iced-tea spoons, container for water, paper towels, newspaper.

Methods:
1) Motivate child to experiment with one or two colors to "beautify" the paper.
2) Design and pattern experiences e.g. textile patterns in clothing.
3) Experiences in storytelling pictures, motivated by stories or poems, unusual aspects of daily events, or dramatization of personal experience.

Drawing:

Materials: Large thick crayons, colored chalks, magic markers, cray-pas, manila paper, newsprint, white drawing paper, construction paper, envelopes or folders of wrapping paper.

Methods: Motivation and discussion prior to the art experience is necessary after the scribbling stage.
1) Familiar experiences which provide for individual interpretation e.g. Family, holiday
2) World of make believe
3) Storybook subjects - Cinderella
4) Trips - to zoo.

Modeling with Clay:

Materials: dough; self-hardening papier-mache; self-hardening clay; ceramic clay; clay boards; plastic forks and spoons; assorted sizes of wooden sticks; small column block for rolling pin; small cookie cutters; air-tight plastic bags.

Methods: 1. Child learns to manipulate dough, etc. and discovers how it can be shaped.
2. Child learns to shape dough, etc. into simple three--dimensional forms.
3) Child creates an intended subject.

Working with Paper and Other Materials

Materials: colored papers of various types; small cardboard boxes; assorted flat materials suitable for collage, e.g. gift wrapping paper, scraps of fabric; rounded-edge scissors, paste.

Methods: a. cutting, folding, creasing, rolling, measuring, fastening shapes or forms decorating forms or articles.
b. discussion of varieties of fabrics and varied uses.
c. stitchery with a large wool darner, tapestry or jiffy needle threaded with wool, yarn, tinsel, ribbon, or thin cord.

Building with Blocks

Materials: Assortment of standard unit and hollow blocks.

Methods: 1. Allow the child to work alone or in small groups to experiment with the blocks themselves to discover what can be done with them.
2. At the intuitive design stage, blocks are combined to make linear, wall and floor-type structures.
3. The child learns to build structures to bridge them, and to reinforce them with toys.
Children should be encouraged to experiment with them.

Constructing with Wood and Other Materials

Materials: manipulative toys, assorted small reday-cut wooden forms e.g. wooden beads, pegs, sticks, wood craft parts for art work; found objects, e.g. spools, plastic boxes, cardboard and wooden boxes; metal tray or box top; hammer, nails, white liquid all-purpose glue, tempera paints, brushes.

Methods:
1. Allow child to experiment with a few pieces of wood selected from an assortment.
2. Allow him to use hammer and nails to glue pieces together.
3. Gradually learns to begin with the idea of a specific object - e.g. boat - can point it.

Puppets and Puppetry

Materials: crayons, drawing paper, straws, tongue depressors, large paper bags; squares of cloth.

Methods:
1. Using familiar situation or storybook character puppets to motivate and show how they can be used to express ideas and feelings through play acting.
2. Making puppets from a square of cloth, flat paper, a paper bag, a sock, stocking or mitten.

Resources

The school, neighborhood
The family
Curriculum areas
Trips

Art and Related Curriculum Areas

Social Studies:	The neighborhood, community helpers
Mathematics:	Exploring and understanding placement, size, weight, shape and distance
	Number facts
Language Arts:	Expression of personal idea and feeling through art
	Story-telling pictures
	Use of puppetry as a medium for language arts
	Provides teacher with clues to the personal interests and thoughts of the non-English child
Science:	Spirit of inquiry in both
	Opportunity to test a variety of solutions before arriving at the final answer.
Music:	Use of puppets in music class - moving them to the tempo of the music, etc.
	Drawings motivated by songs

Art Grades 3 - 6 (Part II)

Scope and Sequence

Painting

Grades 3-4: One or two paintings using three or four colors
Brushes--$\frac{1}{4}$ inch to 1 inch
Experimentation with colors and design
Mixing own colors
Sibject matter paintings from their own experiences

Grades 5-6: Continued use of varied sized brushes, including oxhair
Working with color in a variety of ways
Experimentation with color as related to moods and feelings
Discovery and story-telling painting

Drawing

Grades 3-4: Children are eager to express ideas and feelings because of increased powers of observation, greater manipulative skill and a background of experience.
Motivation through shared experiences, stories, fairy tales, the child's world of fantasy, curriculum areas
Composition, detail, near and far elements, use of patterns, textures, colors

Grades 5-6: The teacher guides the child's art so that he is able to observe more keenly, develops a better sense of the structure of things, can express movement more effectively through the drawing of people and animals in action, can vary color to give an effect of distance, and can suggest the spirit or mood of the topic through color, line quality, and composition.

Materials: crayons, colored chalks, Cray-pas, felt-nib pens, Manila paper, bogus paper, white drawing paper, construction paper, envelopes or folders of wrapping paper.

Modeling with Clay

Grades 3-4: Experimental use with the invention of simple, compact forms
Designing with slabs of clay

Grades 5-6 Because of age and development of finer muscles, these children show a better handling of clay, more varied ideas, and greater sensitivity to three-dimensional form and surface treatment.

Making Posters

Grades 3-4: Understanding of the nature and purpose of posters as distinguished from paintings
Making of simple posters; include lettering

Grades 5-6: Use of posters to stimulate school activities
Use of various media, letterings, etc.

Working with Paper
Basic Skills: Cutting; folding, creasing, and rolling; measuring; fastening shapes or forms; and decorating forms or articles.

Grades 3-4: Exploratory handling, e.g. tearing, twisting, curling, etc.
Use of assorted materials
Experiences with paper and paper boxes result in their making articles to challenge their ingenuity and manual dexterity.
Grades 5-6: More complicated designs, e.g. stiff-covered books and folders, boxes with attached lids, stage properties, costumes and costume accessories for puppet or classroom plays.

Using Cloth and Trimmings, Yarns and Fibers
Grades 3-4: Stitchery
Sock toys
Pattern making
Weaving
Grades 5-6: Stitchery
Pattern making
Weaving
Hooking

Constructing with Wood and Other Materials
Grades 3-4: Children are inventive, show a natural sense of design, and can use hammers, nails, and glue. Need time to experiment with shapes.
Making of toys, games, etc. with finished surface.
Grades 5-6: Good at planning original constructions and increased skill in the use of tools, including hand drills and screw drivers.
Improved use of texture, color, design

Puppets and Puppetry
Grades 3-4: Puppet heads of papier-mache
Grades 5-6: Puppet heads from various materials
Puppets with moveable parts
Costumes
Puppet stage construction

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Activities:

1. Observe art activities using three different media.
   Describe in detail
   1. Motivation and reaction to the children
   2. Routines and procedures for the distribution and use of materials
   3. Procedures for clean-up and return of supplies.

2. Outline briefly but clearly (step by step) six art lessons using different media.

3. Prepare a manual (scrapbook) of ten art lessons, excluding painting and drawings. Include careful directions and actually make the item.
   The purpose of this is to provide some "instant" resources for the first teaching year.

2.1.10. The Teaching of Music

Introduction

In a good program for young children, music becomes a part of the child's life, a part of the child's day, and a support to other areas of the curriculum. The music program generates a love and appreciation of music through music experience and participation in music activities.

Every teacher in the early childhood grades is responsible for the teaching of music. The music program involves presenting to pupils many musical experiences: singing, listening, moving to music, creating, playing rhythm, and tonal instruments.

Scope and Sequence

Singing Experiences
- Learning to sing
- Conversational singing
- Learning Note Songs.

Rhythmic Experiences
- Learning to move to the Rhythm of Music
- Recognizing Variations in Accent and Beat.

Listening Experiences
Developing Pitch Consciousness
Recognizing Phrases
Listening for Appreciation.

Playing Experiences
Playing simple Percussion Instruments
Playing in Rhythm Band
Making Simple Instruments.

Creative Experiences
Initiate rythmic response
Humming or chanting a musical phrase while children are at play or in informal situations.
Use conversational calls and messages
Play tunes on xylophone; experiment with melody bells.

Methods and Materials

Each child grows through music as he becomes a participant to some degree in every phase of the program. Children should participate in musical experiences without fear of failure. Music activities may overlap and may take place simultaneously. A program rich in musical experiences will offer many opportunities so that a child may have a chance for success in at least one. This one success may influence his whole attitude toward music and make it more meaningful in his life.

The school is supplied with pitch pipes, records, phonographs, tape recorders, rhythm instruments, melody bells, xylophones, song flutes, and music texts.

Music Grades 3 - 6 (Part II)

Scope and Sequence

Singing Experiences
Grades 3-4: Learning to sing--conversational singing, question and answer songs, variations on a familiar song
Rote songs
Approaches to the reading of music
Grades 5-6: Learning to sing in tune
Rote songs
Developing music reading techniques
Developing readiness for part singing

Rhythmic Experiences
Grades 3-4: Moving to music
Developing rhythmic response
Developing rhythmic techniques

Appreciation of social values through group rhythmic response

Listening Experiences

Grades 3-4: Recognizing pitch variation
Recognizing musical form
Recognizing instruments of the orchestra
Interpreting rhythmic patterns in songs and recorded selections
Appreciating music of various types

Grades 5-6: Recognizing--pitch variations, musical form, instruments of the orchestra
Interpreting--rhythmic patterns in songs and recordings
Appreciating--music of various types, countries, composers

Playing Experiences

Grades 3-4: Playing simple percussion instruments
Playing simple wind instruments
Song flute and recorder ensembles
Screening for orchestra training classes

Grades 5-6: Playing simple percussion instruments
Playing simple wind instruments
Playing melody and rhythm instruments from score
Developing instrumental ensembles
Introduction of orchestral instruments

Creative Experiences

Grades 3-4: Singing--song interpretation, conversational singing based on classroom situations, question and answer songs
Rhythms--rhythmic patterns based on their responses to songs and stories, on movement and instruments, chants to create a rhythmic pattern
Listening--children choose musical selections for specific events, evaluation of school concerts and performances by fellow students, development of taste
Playing--choosing a rhythm instrument to embellish a song, song flute accompaniment to a song, make up new tunes to familiar songs on familiar instruments.
Composition of words and short melodies

Grades 5-6: Singing--song parodies, tunes to a poem, choice of songs for plays and performances
Rhythmic Response--work out rhythmic and dramatic interpretations of songs, dances, and recorded music
Playing--create and play accompaniments with simple instruments, make up tunes, ensembles to accompany songs and provide background for drama

Listening--reporting on concerts, making up songs to accompany recordings
Composing--improvising, rhythmic patterns, chanting

The Assembly Progeam

The Instrumental Music Program

Readings

Student

Board of Education, City of New York. Teaching Music in the Elementary Grades, Series 1959-60 ($1.00)
Early Childhood Education. Series 1958-59. ($1.00)
Pre-Kindergarten Curriculum. Series 1965-66. ($2.50)

Instructor

Andrews, Gladys. Creative Rhythmic Movement of Children. New Jersey: Prentice Hall, 1954.

Bailey, Eunice. Discovering Music with Young Children. New York: Philosophical Library, 1958.

McMillan, L. Eileen. Guiding Children's Growth through Music. Boston: Ginn, 1959.

Sheehy, E.D. Children Discover Music and Dance. New York: Henry Holt, 1959.

Activities

1. Learn 2 rote songs appropriate for each level: pre-kindergarten, kindergarten, grade one, and grade two.
2. Start a music notebook that will eventually have song, rhythms, lists of recordings, etc., that are appropriate for each age group.

Block VIII (8 Hours class sessions plus conferences and services as Apprentice Teacher)

Theme: Knowing How to Use Materials of Instructions Effectively

1. Objectives: To develop ability to select materials of instruction to fit the needs of the children in the class.

To develop the ability to use the materials of instruction to fit the needs of children.

To develop ability to create materials to fit the particular needs of children.

To develop a functional room setup to facilitate appropriate use of materials by the children.

2. Implementation:

2.1. Content:

2.1.1. Basic criteria for all materials -
In accordance with the needs of all urban children, every effort should be made to use materials showing integrated situations and building a positive image of minority groups:

2.1.2. Criteria guiding selection of material -

--Manipulative materials should be selected to:
Provide for sensory stimulation, physical activity, the development of motor skills, and social skills.
Provide for emotional release.
Satisfy a growing curiosity about the physical aspects of his world.
Help solve problems which arise in his world.

--Audio-visual materials should be selected to:
Develop the ability to speak clearly and listen effectively, abilities needed by most urban children.
Develop auditory-visual discrimination as basic to beginning reading.
Provide a vocabulary on the child's level of understanding which evokes a response.
Provide a content relevant to the child involved, his growing needs, and the area of current concern
Reinforce a first hand experience
Provide a vicarious experience

--Printed materials should be selected to:
Give children a feeling of self-accomplishment through their ability to handle and read printed materials.
Motivate an interest in books and in learning to read
Facilitate growth in learning to read
Increase information, abilities, interests in subject areas, other peoples, etc.

--Supplies and special equipment should be selected to:
Meet developmental needs of children
Meet special learning needs

2.1.3. Use of audio-visual materials and equipment
Because of the increasing emphasis on the use of audio-visual materials, teachers at all grade levels must use materials and equipment with confidence.

(3)

This confidence is gained by learning how to use the following materials and equipment needed in working with pupils of this age group.

Equipment
- tape recorder
- phonograph
- califone
- earphones
- filmstrip projector
- sound projector
- opaque projector

Materials
- charts
- recordings
- tapes (including blank tapes for recording material)
- equipment to make transparencies
- filmstrips
- glass slides, crayons, binding tape, flat pictures

Practice sessions should be arranged by the college supervisor so that every apprentice teacher is able to operate independently, the equipment listed above.

2.1.4. Creation of special materials

Apprentice teachers should be taught how to develop special materials to fit the needs of young children. Instruction should include:
- Use of a primer typewriter
- Use of a rexograph machine
- Use of the manuscript alphabet and numerals approved for New York City Schools.*
- Preparation of a transparency, glass slide, tape
- Preparation of a stencil
- Proper headings for material to be given to child
- Preparation of experience, work charts, helpers, etc.

2.1.5. Sources of classrooms materials and equipment.

Textbooks - Textbooks - Elementary and Junior High Schools, 1967. (Issued yearly by the Board of Education of the City of New York.)

* Handbook for Language Arts, Pre-K, K, 1, 2, Board of Education of the City of New York, 1966, pp. 160-172 (Cost $5.00).

Supplementary List of Approved Textbooks - for Day and Evening Elementary and Junior High Schools, 1967A. (Issued yearly by the Board of Education of the City of New York.)
Supplementary List of Approved Maps and Globes for Grades K-12, 1966B (Issued yearly by the Board of Education of the City of New York.)
List of Tests for Grades K-12, approved during the years 1961 through 1965. Board of Education, City of New York. (Latest issue 1967-68.)

General Supplies - G1 List, Board of Education, City of New York. (Issued yearly.)

Science Supplies - S1 List - Science Supplies for High Schools and Junior High Schools 1967-68. (Issued yearly by the Board of Education, City of New York.)
E1 List - Science Supplies for Elementary Schools 1967-68. (Issued yearly by the Board of Education, City of New York.)

Audio-Visual Supplies - Issued by the Board of Education, City of New York

1964 List of Approved Filmstrips.
1964 List of Approved Color Slides, Flat Pictures, Cut-outs and Transparencies.
Catalog of Supplements for Approved Filmstrips, 2"x2"Color Slides, Flat Pictures, Charts & Transparencies.
List of Approved Instructional Recordings and Tapes 1963.
First 1964 Supplement to List of Approved Instructional Recordings and Tapes, 1963.
1965 Supplement to the 1963 List of Approved Instructional Recordings and Tapes.
List of Approved Audio-Visual Materials, 1966A.
List of Approved Audio-Visual Materials, 1966B.

Non-List Items

Schools can order through special funds selected non-list items. These can be purchased from suppliers, such as:

Creative Playthings, Inc.
Childcraft, Inc.
Milton Bradley Co.
Others

Books, pamphlets, and other printed materials can be purchased from:

Association for Childhood Education,
Washington, D.C.

National Association for the Education of
Young Children
Washington, D.C.
National Education Association
Washington, D.C.
International Reading Association

2.1.6. Functional Room setup

The importance of a functional room setup to facilitate easy use of materials is very important, especially with young children.

In so far as possible, the functional use of the room should be planned with children. Routines for selection of materials, distribution, collection, and display should also be planned with pupils. Opportunities for the development of responsibility for the care of materials and for the use of pupil helpers should be utilized to the maximum.

At the beginning of the school year, it is important to start with familiar materials and gradually introduce new materials. The younger the child, the more necessary to introduce items gradually and remove materials no longer needed for his development.
Procedures for effective use of materials should be discussed, frequently with pupils. As they grow in independence, changes may be made in the room set up in order to capitalize on the children's new abilities.

In those classrooms where regular storage and display spaces are inadequate, innovative measures can be taken to obtain shelving, spaces for storage of children's materials, display areas.

The value of effective display of children's materials cannot be over-emphasized. Displays should be:
- Arranged as a unit or around a topic or curriculum area.
- Labelled with the name of the child responsible.
- Frequently changed to provide maximum opportunity for some work by every child in the room to be on display.
- Show work in different curriculum areas.
- Able to be prepared in some aspects by the children

2.2 Readings:

Student Teacher:

N.E.A., Washington, D.C. A Bibliography of Multi-Ethnic Textbooks and Supplementary Materials, 1967

Instructor:

N.E.A., Washington, D.C. A Bibliography of Multi-Ethnic Textbooks and Supplementary Materials, 1967.

2.3 Assignments

Practice with other Apprentice Teacher how to use the audio-visual equipment listed under Item 2.1.3. Keep a dated time record of how long it requires you to get the equipment ready for use.

Make a chart that will serve a purpose in the class to which you are assigned. Be ready to explain:

Why was this chart developed?
How was it developed with the children?
How do you plan to use it?
How long will you keep it on display?

Make a room layout of the classroom to which you are assigned. Place the furniture and equipment in the most functional way on the diagram. Be ready to justify any changes you have made.